

CLAIMS

1. A method of transmitting CDMA messages between a base transceiver station and user terminals, wherein:

2nd - symbols of messages to certain user terminals are coded with a coding sequence of $2N$ bits to produce sequences of $2N$ chips, and

- the chips are transmitted, characterized in that:

γ_N - symbols of other messages to certain other user terminals are coded with a coding sequence of $k2N$ bits to produce sequences of $k2N$ chips, where k is an integer greater than 1.

2. A method according to claim 1, characterized in that at least two symbols of said other messages are transmitted simultaneously.

3. A method according to claim 2, characterized in that k symbols of said other messages are transmitted simultaneously.

4. A method according to ~~any one of claims 1 to 3,~~
characterized in that:

- a radiation cell of a base transceiver station is divided into sectors,

- a common carrier frequency is used for all the sectors of the cell,

- coding sequences are divided into subsets (S1, S2), and

- different subsets are assigned to user terminals which are located in adjoining or contiguous sectors.

5. A method according to ~~any one of claims 1 to 4,~~^{claim 1} characterized in that different base transceiver stations of a cellular system transmit chips on a common carrier frequency and with a common pass-band.

claim 1

A 6. A method according to ~~any one of claims 1 to 5~~, characterized in that the symbols or the chips are coded by random bit sequences (PN).

claim 1

A 5 7. A method according to ~~any one of claims 1 to 6~~, characterized in that a single sequence is concatenated with a repetition of that single sequence or with a complementary single sequence to constitute a coding sequence $k2N$.

claim 1

A 10 8. A method according to ~~any one of claims 1 to 7~~, characterized in that decoding subsystems are used simultaneously in a user terminal k to decode in parallel k symbols of a message transmitted to that user.

claim 1

A 15 9. A method according to ~~any one of claims 1 to 8~~, characterized in that a symbol is decoded in a user terminal with a decoding sequence of length $k2N$.

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